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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent No. 6,826,991) Serial No. 09/435,718
Inventor(s): Holger RASMUSSEN) Filed: November 8, 1999
Issue Date: December 7, 2004) Attorney Docket No. 009242.81029

For: WEB TRANSFER MECHANISM FOR FLEXIBLE SHEET DISPENSER

REQUEST FOR CERTIFICATE OF CORRECTION

U.S. Patent and Trademark Office
Customer Service Window
Randolph Building, Mail Stop: Certificate of Correction Branch
401 Dulany Street
Alexandria, VA 22314

Certificate
FEB 03 2005
of Correction

Sir:

Pursuant to 35 U.S.C. § 254 and 37 C.F.R. § 1.322, this is a request for the issuance of a Certificate of Correction in the above-identified patent. Two (2) copies of PTO Form 1050 are appended. The complete Certificate of Correction involves one page.

The mistakes identified in the appended Form occurred through no fault of the Applicant, as clearly disclosed by the records of the application, which matured into this patent. Enclosed for your convenience are the relevant portions of the Specification, as filed November 8, 1999.

Issuance of the Certificate of Correction containing the corrections is respectfully requested. Since these changes are necessitated through no fault of the Applicants, no fee is believed to be associated with this request. Nonetheless, should the Patent and Trademark Office determine that a fee is required, please charge our Deposit Account No. 19-0733.

Respectfully submitted,

BANNER & WITCOFF, LTD.

By:

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1.1 FEB 2005

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO.: 6,826,991
DATED: December 7, 2004
INVENTOR(S): Holger RASMUSSEN

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In Column 3, Line 24:
Please replace "Jespereen" with --Jespersen--

In Column 3, Line 30:
Please replace "rots" with --rotates--

In Column 5, Line 18:
Please replace "sallow" with --shallow--

In Column 5, Line 26:
Please replace "sure" with --surface--

In Column 6, Line 11:
Please replace "though" with --through--

In Column 6, Line 27:
Please replace "fasciltate" with --fascilitate--

In Column 10, Line 39:
Please replace "react" with --retract--

Mailing Address of Sender:

Banner & Witcoff, Ltd.
11th Floor
1001 G Street, N.W.
Washington, DC 20001-4597

U.S. PAT. NO 6,826,991

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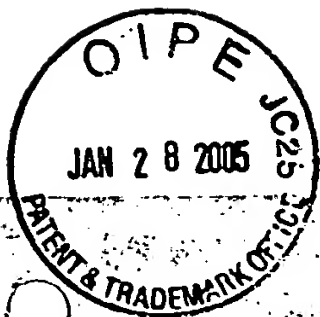
FORM PTO 1050 (Rev.2-93)

U.S. PAT. NO 6,826,991

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11 FEB 2005



Patent/Design

☐ HAND CARRY Group/Section

☒ PATENT ☐ DESIGN

Bldg _____ Rm _____

Serial No. TBA B&W # 00242.81029 Atty/Sec CLM/eis Date Nov. 8, 1999

Inventor Holger Rasmussen Client Georgia-Pacific Corp.

Title Web Transfer Mechanism For Flexible Sheet Dispenser

The following has been received in the U.S. Patent and Trademark Office on the date stamped hereon:

☒ 25 total pp Spec., including # of Claims 16
(# of independent claims 2); ☒ Abstract

☐ Claim for Priority w/Priority Doc _____
Country, Appl. # and Date

☐ Foreign Priority on _____
Country, Appl. # and Date

☐ Petition for Extension til _____

☐ Priority on U.S. Prov. _____ B&W# _____

☐ Amendment ☐ Response : OA dtd _____

☐ Application : ☐ CIP ☐ Continuation ☐ Divisional
Parent Ser. No. _____ B&W# _____

☐ Request for Approval of Drawing Changes

☐ Provisional App _____ pp Spec/Cims; Cover Sheet

☐ CPA Request ☐ w/Ext of Time : OA dtd _____

☐ Declaration/PoA : ☐ Executed ☐ Unexecuted

☐ Notice of Appeal & Fee

☒ Drawings : ☐ Formal ☒ Informal
of distinct sheets 8 : Figs. 1-8

☐ Brief : ☐ Appeal & Fee ☐ Reply

☐ Assignment w/PTO Cover Sheet

☐ Request for Oral Hearing

☐ Small Entity Declaration

☐ Issue Fee : Allowance dtd _____

☐ IDS w/PTO 1449 ☐ Prior Art ☐ w/fee

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RETURN WHEN SERIAL NUMBER IS ASSIGNED TO APPLICATION

Please return this card, indicating receipt date and Serial No. if applicable, of the following:

Applicant(s): Holger Rasmussen

Title: Web Transfer Mechanism For Flexible Sheet Dispenser

Filing Date: November 8, 1999

Client: Georgia-Pacific Corp.

Our Ref.: 00242.81029

Client Ref.: 7807

Attorney/Secretary: CLM/eis

Serial No.: TBA

B&W Rev. 4/99

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11 FEB 2005

fatigue of the spring, such that ultimately the spring force may fall below the required relatively narrow range and thus be insufficient to properly actuate a web transfer.

Thus, there remained a need for an automatic web transfer mechanism that could provide increased reliability, robustness and cost effectiveness. A mechanism capable of delivering these characteristics is disclosed in copending commonly owned U.S. Patent Application No. 09/383,019 by Jespersen, filed August 25, 1999. The sheet material dispenser disclosed in the Jespersen application uses a web transfer arm that remains positioned away from the feed path of the transferred web, to thus reduce the possibility of the transfer mechanism interfering with the web material as it is dispensed. The dispenser eliminates double sheet dispensing from the reserve and working rolls by sensing the presence or absence of the working web at the backside of the main feed roller.

Despite their benefits, the transfer mechanisms of the Boone et al. '973 patent and the Jespersen application are not well suited for providing a transfer of web feed in a dispenser with a feed mechanism incorporating an automatic cutting knife within the main feed roller. As mentioned above, commonly owned Rasmussen U.S. Patent Number 4,712,461 teaches the use of a cam actuated cutting knife that progressively emerges from the feed roller as the roller rotates through a dispensing cycle. Use of a web sensor positioned against or near a feed roller having an integral web cutting knife, as taught in the '461 patent, would be problematic due to the emergence of the cutting knife as the feed roll rotates.

Dispensers embodying feed roller/cutter configurations in accordance with the Rasmussen '461 patent, such as the commercially available Georgia-Pacific P-12 dispenser, are popular, and large numbers are in use. To reduce material waste and associated costs, it would be highly desirable to provide a web transfer mechanism that may be manufactured as

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figs. 1 and 2, it is seen that a dispenser in accordance with the present invention may employ a generally conventional-style exterior dispenser cabinet, e.g., the type used in the commercially available Georgia-Pacific P-12 dispenser. The cabinet shown
5 includes a five-sided cover 1 that is pivotally mounted, at a pivot point 3 (see Fig. 2), to a relatively shallow tray-like base member 5. Base member 5 has a back wall 7 with appropriate openings (not shown) to accommodate fasteners for attachment of the dispenser to a wall.

A reserve roll R of flexible sheet material, such as paper toweling, may be suitably supported between a pair of cantilever mounted wing members 9 extending from the inside
10 surface of back wall 7. Each wing member carries a cup 11 at its free end, which enters into the opposite ends of the core of reserve roll R. The mounting of reserve roll R within the dispenser housing is conventional, and thus no further discussion of this structure is required. Additional generally well known features of the dispenser include a lower chassis comprising a pair of side plates 13 extending from back wall 7 along the opposite sides of the dispenser
15 in a lower part thereof. Side plates 13 serve to provide rotatable mounting locations for the feed rollers and other operative components of the dispenser, to be described.

Preferably, as in the commercially available Georgia-Pacific P-12 dispenser, web material is dispensed in response to a pulling force (tension) being exerted on an exposed free
end 15 of a working web 17 (see Fig. 3). Pulling of free web end 15 induces main feed roller
20 19 (see Fig. 3) to rotate a predetermined amount, and a sheet segment of predetermined length to be dispensed and cut by a feed roller mounted, cam actuated, knife of the type disclosed in Rasmussen U.S. Patent No. 4,712,461 (hereby incorporated by reference in its entirety). Web material may alternatively be dispensed by rotating a known-type ratchet wheel 21 by hand.

The web transfer mechanism of the present invention is also useable with various other web feed/cutting mechanisms known in the art.

A web transfer mechanism 23 in accordance with the present invention is seen clearly in Fig. 3 and includes a pivotable sensor plate 25, a pivotable stop arm 27, a pair of idler rollers 29 and 31, main feed roller 19 and a rotatable transfer arm 33. In operation, working web 17 comes-off of a working (stub) roll 35 and follows a path extending under sensor plate 25, around upper idler roller 29 and into a feed nip 37 formed between lower roller 31 and main feed roller 19. A reserve web 39 extends from reserve roll R (see Fig. 2), over roller 29 (in light contact with working web 17), and terminates with a free end 41 positioned in a space defined between main feed roller 19 and rotatable transfer arm 33. A pre-feed portion of the working web path 43, spaced away from (behind and above) feed roller 19, is where the presence or absence of web from working roll 35 is sensed.

As will be described in greater detail, when working roll 35 is completely depleted, a trailing edge of working web 17 passes out from under a forward edge of sensor plate 25. Sensor plate 25 is biased downwardly, preferably solely by gravity (alternatively or additionally by a spring), and pivots downwardly when freed to do so by an absence of web 17, to rotate stop arm 27 slightly counterclockwise about a pivot pin 45. Transfer arm 33 is biased to rotate counterclockwise towards nip 37 and does so when released from its set position, by the counterclockwise rotation of stop arm 27. As transfer arm 33 rotates to transfer position 33', it drives a free end portion of the reserve web 39 into or proximate nip 37, where reserve web 39 may be drawn through nip 37 upon subsequent driving of feed roller 19.

Working roll 35 originates as a reserve roll R that has been partially depleted after dispensing an amount of web material therefrom. The degree of depletion of reserve roll R may be visually monitored by opening cover member 1, or by a known type of indicator 47 on the front or side of cover member 1, such as a rotatable color bar or a transparent window.

5 Upon partial depletion, reserve roll R (now a stub roll 35) is removed from between wing members 9 and replaced with a new reserve roll. The removed roll is placed in receptacle 49. Receptacle 49 is opened by lifting sensor plate 25, which forms a cover over receptacle 49, and working roll 35 is dropped into the receptacle to rest on the floor thereof. Sensor plate 25 is lifted by rotating sensor plate 25 about a pivot axis 51 defined between side plates 13,
10 adjacent back wall 7. To facilitate this movement, a pair of finger grip holes 53 are provided in sensor plate 25 (see Fig. 5).

The lower chassis floor is cut-away (open) between side plates 13 in the region of receptacle 49. The floor of receptacle 49 is thus formed by the overlapping bottom panel of cover 1, when cover 1 is in its closed position.

15 The cores of the web rolls preferably comprise mounting spindles 55 that protrude from the opposite ends of the rolls, and which may become seated within a notch 57 provided in a pair of retaining members 59 provided within receptacle 49. As shown, retaining members 59 are thin notched plates fixed at their forward ends to a front wall of receptacle 49, and extending toward the rear of receptacle 49. Retaining members 59, with spindles 55, restrain
20 working roll 35 as it is pulled upwards by tension in pre-feed web portion 43, to prevent working roll 35 from being drawn up from under sensor plate 25, especially as working roll 35 reaches the end of working web 17 (which may be glued to spindle 55).

Additionally, as cover 1 is opened, shield 103 is released to rotate counterclockwise to the open position shown in Fig. 9 (and labeled 103' in Fig. 3). As shield cover 103 rotates into open position 103', the inside end surfaces of slots 123 of arm guides 121 contact the opposing edges of lever arms 85. Spring 111 biases movable shield 103 outwardly, and
5 overcomes the relatively weaker opposing bias of springs 93 acting on arms 85. Thus, as shield 103 is pushed to its open position, arm guides 121 pull arms 85 forwardly to pivot transfer bar 33 outwardly, with the inside ends of slots 123 sliding upwardly along arms 85. By this motion, transfer bar 33 is retracted into the open (loading) position shown in Fig. 9 (and labeled 33'' in Fig. 3) spaced a maximum distance away from feed nip 37.

10 As thus described, in one smooth motion, the opening of cover 1 allows movable shield 103 to open, and transfer arm 33 to retract away from the feed nip, thereby presenting a large, easily accessible opening for pre-transfer placement and retention of the leading end portion of a new reserve roll R. Specifically, once a new reserve roll R is mounted between wing members 9 and a leading web end portion is pulled free from the roll, setting of the dispenser
15 for a subsequent transfer is a simple matter of passing the leading web end portion over idler roller 29 and placing the same between stationary plate 97 and pivotable transfer arm 33 (retracted to position 33''). The dispenser is then returned to a normal dispensing condition by simply swinging cover member 1 closed. Closure of cover member 1 automatically locks shield 103 in its closed position, and returns transfer arm 33 to its set position (see Figs. 3 and
20 8), retained by stop arm 27, until a release thereof by sensor plate 25 upon depletion of the stub roll.

The components of the inventive web transfer mechanism may be manufactured using known materials and manufacturing techniques. For example, durable lightweight